

CURRENT ISSUES IN UNIVERSITY MANAGEMENT EDUCATION

Prepared by

Max von Zur-Muehlen, Ph.D., Institutional and Public Finance Statistics Branch

February 20, 1978



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CURRENT ISSUES IN UNIVERSITY MANAGEMENT EDUCATION

(A Report to the Executive Meeting of the Council of Deans of Faculties of Management and Business Administration)

January 31, 1978

First draft

The views expressed by the author are his own and not necessarily those of Statistics Canada.

Prepared by:

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February 20,1978 (revised)

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PREFACE

This draft report focuses on Current Issues in University Business Education and supplements the "Review of University Business Education in Canada" which provides the historical setting for the discussion.

This project was facilitated through the assistance and co-operation of the Council of Deans of Faculties of Management and Business Administration which had encouraged its member institutions to respond to questionnaires and interviews. Without the support of the business schools, this study would not have been possible. Alf Chaiton conducted most of the interviews, and functioned as a Consultant to the Council of Deans.

The information and analysis presented in this report have to be regarded as tentative and reactions to them are welcomed.

As with many of my other studies, the clerical assistance of Mrs. E. Kealey and the secretarial support of Mrs. Christine Jolicoeur were indispensible together with the editorial advice of Mary Sue Desveraux and Mr. Jean Godin's help with regard to the French speaking universities. The unique support of the Council of Deans, and Alf Chaiton's active participation in the project are gratefully acknowledged. Digitized by the Internet Archive in 2023 with funding from University of Toronto

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Introduction

A previous report, "A Review of University Business Education in Canada"^{*}, examined trends in enrolment, graduation and employment patterns, and the socio-economic characteristics of the business faculty, from the early sixties to the mid-seventies; this study focuses on current and future trends of some of these variables.⁽¹⁾

Enrolment patterns in 39 business schools at the undergraduate, master's and doctoral level, by institution and province, are related to overall university enrolment. Similarly, the size of the full- and part-time business faculty between 1975-76 and 1977-78 is related to the total number of full-time university teachers.

*A Review of University Business Education in Canada, by Max von Zur-Muehlen, Statistics Canada (January, 1978)

⁽¹⁾ Most of the information was derived from direct communication with business schools, and if necessary, supplemented by Statistics Canada data. Since only universities which offer programs in commerce and business administration are included, the tables omit those which offer only individual courses in business or administration. Furthermore, the definitions used by the business schools may differ from the reporting requirements of Statistics Canada. Consequently, although an attempt has been made to reconcile the information, the data sets may contain some discrepancies. Even though precise figures are given, attention centres on trends. Since some information was supplied orally, the dataneeds to be verified and confirmed. However, the effect is not great enough to negate the essential findings of the analysis.

The demand for university business education and its implications for faculty, teaching load, admission criteria, funding, space, and research support are also examined.

Enrolment

Full-time enrolment at the undergraduate level increased 7% from 28,634 in 1975-76 to 30,645 and a further 8%, to 33,351, in 1977-78 (Table 1)⁽²⁾. In contrast, preliminary figures for total full-time undergraduate enrolment, excluding business, indicate a relative and absolute decline in 1977-78.

Most universities shared in the growth of full-time undergraduate business enrolment. However, efforts are underway to curb it in the future. Some business schools such as Western and Queen's have limited the number of undergraduates for several years; others, such as Alberta and Manitoba, have formally reduced the number of places allotted for undergraduate business study; and a third group has raised or is planning to raise admission standards and/or has specified earlier deadlines for applications. Very few could continue to accept all qualified applicants. As a result of these measures, thousands of qualified applicants have been turned down - one Ontario university accepted only one out of ten applicants, so that all of those accepted were "Ontario scholars" with averages above 80%. Many schools that

⁽²⁾ Some universities do not count students in their first and second year as business enrolment although they are studying business subjects. Also excluded are students in non-degree programs, most of which are administered by extension departments.

			Full-time					Part-time		
University	1975-76	1976-77	Change Over 1975-76	1977-78	Change Over 1976-77	1975-76	1976-77	Change Over 1975-76	1977-78	Change Over 1976-77
Memorial	450	500	+ 50	600	+100		1	1	1	-
Prince Edward Island	303	358	+ 55	396	+ 38	129	140	+ 11	113	- 27
Acadia Dalhousie	387 551	425 634	+ 38	463 703	+ 38	41 9	16 89	+ 7 + 48	35 77	+ 19 - 12
Mount St. Vincent St. Francis Xavier	104 291	121 314	+ 17 + 23	121 391	0 + 77	53	55 12	+ + 22	52 15	+ ι ωω
Saint Mary's	772	824	+ 52	856	+ 32	307	287	- 20	308	+ 21
Sub-Total Nova Scotla	2,105	2,318	+213	2,534	+216	420	459	+ 39	487	+ 28
Mount Allison	174	196	+ 22	200	+ 4	ı	L	t	I	i
Moncton	400	413	+ 13	407	6	37	46	+ • 9	3 1	- 46
Fredericton (New Brunswick)	165	156	+ 50	175	+ 10	25	130 34	+ + 40	20	- 14
Sub-Total New Brunswick	1,339	1,415	+ 76	1,492	+ 77	152	210	+ 58	<u>50</u>	-160
Bishop's	219	270	+ 51	314	+ 44	2	ı	1 2	27	+ 27
Concordia	2,651	2,551	-100	2,576	+ 25	2,773	2,569	-204	2,567	- 2
Ecole Hautes Commerciales	1,438	1,481	+ 43	1,488	+ 7	824	150	+ 7	1 20	+ 19
McG111	1,122	1,126	+ 4	1,067	- 59	159	133	- 26	140	+ 7
Quebec (Chicoutimi) Quebec (Montreal)	632	1.047	+415	1,798	+751	1,430	1,500	+ 70	1,500	0
Quebec (Rimouski)	100	08	- 20	250	+170	200	225	+ 25	600	+375
Quebec (Trois Rivieres)	378	428	+ 50	549	+121	130	144	+ 14	150	+ 6
Sherbrooke	625	710	+ 85	753	+.43	1 		1	1	
Sub-Total Quehec	8,185	8,913	+728	10,232	+1,319	5,618	5,552	- 66	5,9/3	+421

FULL- AND PART-TIME UNDERGRADUATE ENROLMENT IN COMMERCE AND BUSINESS ADMINISTRATION BY UNIVERSITY AND PROVINCE, 1975-76 TO 1977-78

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FULL- AND PART-TIME UNDERGRADUATE ENROLMENT IN COMMERCE AND BUSINESS ADMINISTRATION BY UNIVERSITY AND PROVINCE, 1975-76 TO 1977-78

			rurr-cime					Part-time		
University	1975-76	1976-77	Change Over 1975-76	1977-78	Change Over 1976-77	1975-76	1976-77	Change Over 1975-76	1977-78	Change Over 1976-77
Carleton	563	631	+	675	+ 44	5.9	49	- 10	50	+ -1
Lakehead	160	230	+ 70	400	+170	2.5	50	+ 25	75	+ 25
Laurentian	279	361	+ 82	340	- 21	64	45	- 19	50	+
McMaster	1,084	1,058	- 26	1,187	+129	119	171	+ 52	161	- 10
Queen's	694	701	+ 7	725	+ 24	13	20	+ 7	9	- 11
Ottawa	803	873	+ 70	1,000	+127	412	448	+ 36	500	+ 52
Ryerson	1,781	1,790	+ 9	1,800	+ 10	I	I	I	I	ŝ
Toronto	508	563	+ 60	705	+137	10	29	+ 19	28	! prot
Wilfrid Laurier	006	1,037	+137	1,093	+ 56	17	62	+ 45	66	+ 37
western	290	289	 	292	+ 3	ł	I	ł	ł	ł
Windsor	1,079	1,292	+213	1,316	+ 24	627	803	- 19	500	1
-York	179	213	+ 34	237	+ 24	I	1	ł	1	1
Sub-Total Ontario	8,320	9,043	+723	9,770	+727	1,346	1,482	+136	1,572	+ 90
Manitoba	1,414	1,325	- 89	1,257	- 68	158	183	+ 25	205	+ 22
Regina	518	515	۱ د	600	+ 85	45	52	+ 7	100	+ 48
Saskatchewan	1,125	1,166	+ 41	1,161	۲ بر	85	16	+ 5	200	- 6
Sub-Total Saskatchewan	1,643	1,681	+ 38	1,761	+ 80	130	143	+ 13	185	+ 42
Calgary	1,161	1,194	+ 33	1,450	+256	246	192	- 54	181	- 11
Alberta	1,833	1,765	- 68	1,572	-,193	244	211	- 33	191	- 20
Sub-Total Alberta	2,994	2,959	- 35	3,022	- 63	490	403	- 87	372	- 31
Simon Fraser	384	464	+ 80	424	- 40	t	ı	ł	ı	ł
British Columbia	1,497	1,669	+172	1,863	+194	1	1	E	ł	I
Sub-local British Columbia	1,881	2,133	+252	2,287	+154	1	1	1	-	-
Canada Total	28,634	30,645	2,011	33,351	2,706	8,443	8,572	129	8,957	385

have not limited enrolment are planning to do so in 1978-79. Moreover, the intense competition may have discouraged many potential students from applying. It may be noted that in the United States the proportion of students who major in business is still substantially higher than in Canada, although the percentage in Canada has increased from 10.3% to 11.9% during the last three years.

Until very recently only one out of ten undergraduate business students was female. At present, more than one-quarter are women, an upward trend that is expected to continue.

The current demand to enter business programs, which is part of the continued shift in preference to vocational and professional fields, has serious resource implications for the universities. Although the number of fulltime business teachers has been expanding, it has notkept pace with the growth of undergraduate and graduate enrolment. It appears that the teaching load of the business faculty has increased to the possible detriment of teaching quality and a likely decline in research.⁽³⁾

Part-time undergraduate enrolment in degree programs has also continued to expand. However, many universities do not have a part-time degree program; but students may enroll in non-degree (continuing education) business courses, which often are not part of the business schools. Therefore, the numbers do not

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⁽³⁾ These questions will be discussed in greater detail at a later stage in this report.

necessarily reflect the demand for part-time business education. Part-time undergraduate enrolment in business in relation to total part-time undergraduate enrolment was between 7% and 8% with considerable variation by university from a high of near 20% for Concordia to a low of 1% to 3% for many universities.

Appendix Table A-I relates full-time undergraduate business enrolment to total undergraduate enrolment at each university offering degrees in commerce, business administration or administrative studies. As already noted, the percentage grew from 10.3% to 11.9% in the three years, 1975-76 to 1977-78. Almost without exception, each of the 39 business schools experienced an increase. Universities in the Atlantic provinces traditionally have a larger percentage of business enrolment, with a high of 37.2% at St. Mary's in 1977-78. The Quebec universities contain an average of 15.8% of business students. The average in Ontario is 9.0%, but variations are considerable, ranging from a low of 2.1% at Western and York to a high of 36.2% at Sir Wilfrid Laurier. With the exception of Saskatchewan universities, the Western business schools, on average, account for 10% of total enrolment.

At the graduate level, the number of full-time M.B.A. students rose from 2,949 in 1975-76 to 3,231 in 1977-78 (Table 2). Since most universities have instituted measures to control the number of places available, these figures only partly reflect actual demand. Currently, 23 universities offer an M.B.A. program. Well over 50% of the full-time enrolment is at the eight Ontario universities, and, for part-time studies, Ontario's percentage is even higher (Table 2).

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FULL- AND PART-TIME MASTERS ENROLMENT IN BUSINESS ADMINISTRATION BY UNIVERSITY AND PROVINCE, 1975-76 TO 1977-78

Contrat of Contrat	Manitoba	Wilfrid Laurier Western Windsor York Sub-Total Ontario	McMaster Queen's Ottawa Toronto	Concordia Ecoles Hautes Commerciales Laval McGill Quebec Sherbrooke Sub-Total Quebec	Dalhousie Saint Mary's Sub-Total Nova Scotia Moncton	University
22	68	- 444 72 302 1,493	211 177 115 115	1113 127 85 158 - 115 598	91 35 <u>126</u> <u>37</u>	1975-76
36	96	- 435 80 364 1,569	168 195 128 199	104 77 101 183 - 581	141 45 <u>186</u> <u>30</u>	1976-77
+ 14	+ 7	- 9 + 8 + 76	- 43 + 18 + 13 + 27	- 9 - 50 + 16 + 25 + 25 - 17	+ 50 + 10 + 60	Full-time Change Over 1975-76
19	89	437 112 308 1,625	207 197 150 214	143 99 122 181 	175 62 <u>237</u> 28	1977-78
- 17	- 28	+ + + + 1 + 56	+ 39 + 2 + 22 + 15	+ 39 + 22 + 21 - 2 + 26 + 26 +106	+ 34 + 17 + 51	Change Over 1976-77
42	101	- 99 771 <u>1,728</u>	312 13 270 263	354 23 258 - 636	400	1975-76
34	97	47 - 96 848 1,913	279 12 301	349 15 263 - 6 <u>34</u>	53 53 1	1976-77
00	- 4	+ 47 - 3 + 77 +185	- 33 - 1 + 67	י + + וי אין הסססט אין הססטט	+ 13	Part-time Change Over 1975-76
27	73	- - 842 2,022	264 16 290 475	402 15 14 300 131 - 862	75 73 <u>148</u>	e 1977-78
- 7	- 24	+ 22 - 30 +109	+++++++++++++++++++++++++++++++++++++++	+ 53 0 + 7 + 37 +131 +131 +228	+ 75+ 20	Change Over 1976-77

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	NCE 1975-76 TO 1077-72

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			Full-time					Part-time		
CHANCEDELY	1975-76	1976-77	Change Over 1975-76	1977-78	Change Over 1976-77	1975-76	1976-77	Change Over 1975-76	1977-78	Change Over 1976-77
Calgary	(contraction)	2	+	6	+ 4	5 S	06	+ 37	128	+ 38
Alberta	108	110	+ 2	111	+ 1	116	86	- 18	97	1
Sub-Iotal Alberta	109	112	+	117	+ 5	169	188	+ 19	225	+ 37
Simon Fraser	212	200	- 12	2.00	0	ł	t	I	ı	ł
British Columbia	263	244	- 19	250	+ 6	15	20	+ 5	30	+ 10
Sub-Total British Columbia	475	444	- 31	450	+ 6	15	20	+ 5	30	+ 10
Total Canada	2,949	3,054	+105	3,231	+177	2,731	2,939	208	3,387	+448

Part-time graduate business enrolment now exceeds full-time (in 1977-78, 3,231 full-time and 3,387 part-time students). Business enrolment accounted for over 16% of the total part-time enrolment for those universities which offered business programs. Most schools indicated that they had many more qualified applicants than available places.

As a percentage of total graduate enrolment, the number of full-time business students increased from 11.4% in 1975-76 to 11.7% in 1977-78. In many universities, such as at Western, Windsor and York, graduate business enrolment constitutes one-quarter of the total; in others, the percentage was much lower, (e.g., Manitoba, 5.2%; Saskatchewan, 3.2%; and the university of Alberta (5.4%) (Appendix Table A-2).

A number of special surveys were undertaken to determine 1977-78 full- and part-time doctoral business enrolment, by specialization and year in program. During the last few years, business represented about 1% of all Canadian Ph.D. enrolment compared with 4% to 5% in the United States. The majority of Canadians obtain business doctorates in the United States, although the number has been declining. Moreover, about half those with Canada Council awards are studying abroad, and American universities (Chicago, Stanford, Harvard, Wharton, Columbia, California, Oregon and Washington) have a strong attraction for Canadians seeking Ph.D.'s in business.

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Paradoxically, more than 50% of the full-time doctoral students at Canadian universities are non-Canadians. If recent landed immigrants are excluded from the non-Canadian category, almost one-third are foreign visa-holders. It is likely that most of the foreign students and, potentially, some of the landed immigrants will return to their country of origin. The result is that a sizeable number of these future Ph.D.'s will not be available for employment in Canada.⁽⁴⁾

In 1977-78, ten universities offered doctoral programs in business administration or administrative studies (Table 3):

- British Columbia, Toronto, Laval, and Western account for 73% of enrolment with registrations of 37, 41, 23, and 35, respectively.
- Concordia, McGill, Québec (Montréal campus), and Ecole des Hautes
 Etudes Commerciales have a joint bilingual program with 32 doctoral
 sturdents.

Three or four other universities are planning doctoral programs in administrative studies or management sciences.

Since doctoral students in business can choose from ten areas of specialization, such as accounting, finance, production, and marketing, enrolment in each is small.

⁽⁴⁾ The supply-demand imbalance of business Ph.D.'s will be discussed in another part of this report.

Table 3

Business Doctoral Enrolment by University and Year in Program, 1977-78

			У	lear in H	Program		
University	1	2	3	4	5	6	Total
Laval	5	4	7	4	2	1	23
Quebec*	17	3	6	4	2	0	32
Toronto	5	8	9	12	2	5	41
Western	10	8	5	5	2	5	35
York	6	5	3	0	0	0	14
British Columbia	9	12	7	5	2	2	37
Simon Fraser	0	3	1	0	0	0	. 4
Total	52	43	38	30	10	13	186

* A joint program by Concordia, McGill, Ecole des Hautes Etudes Commerciales and Quebec (Montreal).

Table 4 shows enrolment by specialization and year in program for 1977-78. The most popular fields are: finance (41), marketing (33), and organization theory (23). Five other areas of specialization have a total enrolment of 60 students. Close to 50% of these business doctoral students are either in their first or second year of study.

A summary table relates full-time equivalent undergraduate and graduate business enrolment to full-time equivalent enrolment.⁽⁵⁾ Business schools have experienced substantial enrolment increases, whereas total full-time equivalent has levelled off. Between 1975-76 and 1977-78 in the 39 universities that offer business programs, full-time equivalent business enrolment in relation to total full-time equivalent enrolment increased from 10.6% to 12.5% (Table 5).

Almost without exception, all institutions shared in this gain. The Maritimes and Québec have substantially larger proportions of business students than Ontario, and, with some exceptions, the Western provinces. Business students constitute more than 20% of the 1977-78 enrolment in some universities.⁽⁶⁾

⁽⁵⁾ Part-time credit enrolment was divided by three and added to full-time undergraduate enrolment and part-time graduate enrolment. Full-time graduate enrolment was multiplied by three and also added. These four components constitute full-time equivalent enrolment.

⁽⁶⁾ At St. Mary's, Sir Wilfrid Laurier, and Simon Fraser, economics is included within the business school.

Table 4

			Year in	Program			
Specialization	1	2	3	4	5	6	Total
Accounting	7	5	1	3	1	3	20
Finance	7	15	8	5	1	5	41
Industrial Relations	4	2	2	0	0	1	9
Marketing	12	7	7	4	1	2	33
Management	9	2	2	3	1	0	17
Organization theory	3	4	7	6	3	0	23
Quantitative Methods	2	4	7	5	2	1	21
Production	1	0	1	0	1	0	3
Other	7	4	3	4	0	1	19
Total	52	43	38	30	10	13	186

Business Doctoral Enrolment by Specialization and Year in Program, 1977-78

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Full-time Equivalent Business Enrolment in Relation to Total Enrolment by University and Province, 1975-76 to 1977-78

University and Province	1975-76	1976-77	1977-78*
	%	%	%
Memorial	7.8	8.1	9.4
Prince Edward Island	19.7	23.0	23.8
Acadia	13.8	15.1	17.0
Dalhousie	9.2	11.6	12.5
Mount St. Vincent	7.9	8.4	7.8
St. Francis Xavier	12.7	13.5	16.0
St. Mary's	32.1	36.3	39.1
Sub-total Nova Scotia	13.9	16.0	17.1
Moncton	12.8	13.5	13.5
Mount Allison	12.6	14.4	14.2
New Brunswick	13.0	14.2	14.6
Sub-total New Brunswick	12.9	14.0	14.2
Bishop's	25.3	32.1	31.5
Concordia	25.1	25.3	28.0
Laval	7.0	7.8	8.5
McGill	8.3	8.6	8.7
Montreal (Ecole Hautes Commerciales)	7.4	7.5	6.6
Quebec (Chicoutimi)	25.6	25.9	
Quebec (Rimouski)	11.9	9.2	20.2
Quebec (Montreal)	13.2	21.1	
Quebec (Trois Rivieres)	11.2	11.8	
Sherbrooke	13.8	10.5	13.6
Sub-total Quebec	11.6	12.1	16.9
Carleton	5.7	6.3	7.1
Lakehead	6.9	9.3	14.2
Laurentian	10.0	11.5	11.1
McMaster	14.6	13.4	15.3
Ottawa	9.8	10.7	11.9
Queen's	9.3	9.5	9.6
Ryerson	20.3	20.0	19.7

University and Province	1975-76	1976-77	1977-78*
	%	%	%
Toronto	3.1	3.6	4.3
Western Ontario	9.1	8.6	8.7
Wilfrid Laurier	23.4	27.0	28.8
Windsor	16.8	18.3	20.0
York	11.6	14.5	12.6
Sub-total Ontario	9.4	10.1	10.6
Manitoba	9.6	9.4	9.0
Regina	14.3	16.7	18.9
Saskatchewan	10.7	10.8	11.3
Sub-total Saskatchewan	11.6	12.0	13.2
Alberta	9.6	9.1	8.1
Calgary	9.4	9.9	11.7
Sub-Total Alberta	9.6	9.4	9.4
British Columbia	10.3	10.0	10.4
Simon Fraser	14.0	15.6	14.2
Sub-total B.C.	11.2	11.2	11.7
Grand Total	10.6	11.1	12.5

Table 5 (cont'd)

* Preliminary

Faculty Characteristics

The trends of business enrolment have a bearing on the number of teachers and budgetary requirements. The size of the business faculty from 1975-76 to 1977-78 has been recorded in Table 6. The number of full-time teachers rose from 1,332 to 1,548. Part-time faculty growth was somewhat slower, increasing from 1,084 in 1975-76 to 1,170 in 1977-78.⁽⁷⁾

Most universities increased their business faculty by one to four positions each year, and very few experienced an absolute decline. Several universities now have more than 50 full-time business teachers and a few have nearly a hundred.

Ideally, there should be a close correlation between the proportion of business faculty and business students in relation to total faculty and total enrolment. In 1976-77, an average of 4.9% of the faculty at universities which offered business programs were teaching business subjects (Table 7).⁽⁸⁾ Although the proportion rose as high as 15% at St. Mary's, Mount St. Vincent, Wilfrid Laurier, and Ryerson, the majority of institutions had between 2% to 5% of total faculty teaching business subjects. The same year, business students accounted for 11.1% of full-time equivalent enrolment. In some institutions, this overall imbalance is even more pronounced; for example

In any case, the data must be interpreted with caution. Many business students, particularly in the first and second years, take courses in the arts and sciences and some business schools allow other students to enroll in their courses or provide specialized courses for students in disciplines such as engineering or pharmacy.

⁽⁷⁾ In most instances, part-time teachers in continuing business education programs have been excluded.

⁽⁸⁾ Since the number of total part-time teachers is unknown, except for business schools, this component has been eliminated from the discussion. However, even though it can be assumed that the proportion in business schools is higher, it would not rectify the imbalance.

FULL- AND PART-TIME UNIVERS	ITY TEACH	ERS IN C	OMMERCE AND IS	TH CCONTCO	NOT TWAT O TATTLE	MATHO TO	THIS FYFUL			
			Full-time					Part-time		
University	1975-76	1976-77	Change Over 1975-76	1977-78	Change Over 1976-77	1975-76	1976-77	Change Over 1975-76	1977-78	Change Over 1976-77
Nemor1al	17	20	+ ω	2.2	+ 2	4	<u> </u> 5	+	اندا	- 2
Prince Edward Island	6	6	0		+ 1	4	6	+ 2	ļω	
Acadia	11	12	+	1.2	0	5	ۍ ر.	, O	3	+ 2
Dalhousie	28	29	+ 1	34	+ 5	ιω	ر	+ ??	11	+ + 10
Mount St. Vincent	4	U,	+ 1	4	1 5	5	5	+	-+ c	+
St. Francis Xavier	6	7	+ +	00	· +	22	3 N	+ > 0	2 2 10	+ 0 C
St. Mary's (1)	29 79	29 87	+ 0	220	+ + 11	35	41	+ + o u	67	+ 26
Sub-Total, Nova Scotia	8/	28	+	110	T LL	<u> </u>	11		, <u> </u>	
Mount Allison	4	S	+	6	+	n N	n w	+ + 	2	1 I 2
Moncton	25	25	0	20	0	b U	. 0	+	n +	-
New Brunswick	24	29	+ 5	55	۱ دی د	بى د	، نا د		10	-
Sub-Total New Brunswick	53	59	+ 6	57	- 2	10	12	+	12	0
	7	00	+	9	+ 1	2	2	0	ω	+
Concerda a	85	90	+ 5	06	0	150	147	၊ ယ	140	- 7
Ecole des Hautes Etudes Commerciales	85	06	+ 5	100	+ 10	160	165	+ 5	165	
Laval	65	67	+ 2	71	+ 4	52	67	+ 15	6/	-
MeGill	48	51	+ 3	56	+ 5	41	41	. 0	42	- + ~ ⊢
Ouebec (Chicoutimi)	10	20	+ 10	22	+ 2	40	45	+	, , , ,	+
Quebec (Montreal)	31	<mark>မ</mark> သ	+ 2	54	+ 21	132	111	- 21	111	- r· C
Quebec (Rimouski)	14	16	+ 2 .	23	+ 7	15	20	+ 	22	+
Quebec (Trois Rivieres)	31	35	+ 4	31	- 4	42	55	+ 13		> c
Shurbrooke	45	42	۲ س	::3	1 9	45	05	• + • •	0 L L	
CubeTutal (hiphen	421	452	+ 31	489	+ 37	679	703	+ 24	011	

Table 6

Sub-Total British Columbia 106 122 $+16$ 137	British Columbia 85 100 + 15 113 Simon Fraser (2) 21 22 + 1 24	Alberta 53 58 + 5 63 Calgary (2) 28 39 + 11 47 Sub-Total Alberta 81 97 + 16 110	Regina 20 21 + 1 21 Saskatchewan 35 35 0 42 Sub-Total Saskatchewan 55 56 + 1 63	Manitoba <u>57</u> <u>57</u> <u>0</u> <u>57</u>	University1975-761976-77Change Over 1975-761977-78Carlaton811+ 313Lakehead1414015Lawrentian1314+ 117McMaster3938- 142Queen's4444+ 117Otrawa4552+ 757Toronto (undergraduate)5963+ 465Toronto (graduate)3132+ 455Wilfrid Laurier45850- 145Western4585962- 155Vork2829+ 134Sub-Total Ontario458478+ 20511	Full-time
+++ 13 ++15	+ 5	+ /	0	0	lange Over 1976-77 ++ 2 ++ 1 ++ 2 ++ 2 ++ 2 ++ 2 ++ 2 ++ 2	
10 25	15	32 25 57	10 12 22	26	1975-76 1 17 5 20 19 38 20 19 38 46 10 22 5 5 18 10 22 22 2	
	19 11 30	37 27 64	9 12 21	26	976-77 C 20 6 2 2 2 2 2 2 47 47 47 47 42 11 22 42 11 22 5 11 22 6 13 24 8	
	+ + +	+ 5	1 1	0	hange Over 1975-76 + 1 + 1 + 2 + 2 + 2 + 2 + 4 + 1 + 3 + 3 + 26	Part-time
	21 12 33	23 18 41	12 16 28	26	1977-78 24 6 2 25 17 40 7 50 11 15 23 239	
	+ + + 3 + 2	-14 -9 -23	+ 4	0	Change Over 1976-77 + 4 0 - 2 - 2 - 4 + 8 0 - 7 - 4 - 7 - 4 - 2 - 4 - 4 - 4 - 4 - 4 - 4 - 4 - 4 - 4 - 4	

FULL- AND PART-TIME UNIVERSITY TEACHERS IN COMMERCE AND BUSINESS ADMINISTRATION BY UNIVERSITY AND PROVINCE, 1975-76 TO 1977-78

Table 6 (cont'd)

(1) Includes economics.(2) Excludes economics.

Table 7

Business Faculty in Relation to Total Full-time University Teachers by University and Province, 1976-77

University and Province	Business Faculty	Total Full-time	Percentage Business Faculty
		Faculty	Business faculty
Memorial	20	770	2.6
Prince Edward Island	_8	114	7.0
Acadia Dalhousie (1)	12 30	1.87 781	6.4 3.8
Mount St. Vincent ' St. Francis Xavier St. Mary's(2)	14 11 27	95 158 173	14.7 7.0 15.6
Sub-total, Nova Scotia	94	1,394	6.6
Moncton Mount Allison New Brunswick	25 6 21	294 129 573	8.5 4.7 3.7
Sub-total, New Brunswick	52	996	5.2
Bishop's Concordia	6	67 642	9.0
Ecole des Hautes Etudes Commercial	les 90	1,596 (3) 1,340	5.6
McGill Ouches (combined)	39	1,252	3.1
Sherbrooke	42	580	7.2
Sub-cotal, Quebec	100	0,002	<u> </u>
Carleton Lakebead	12	633 240	1.9
Laurentian	16	274	5.8
McMaster	37	823	4.5
Ottawa (4)	26	934	2.8
Queen's	41	886	4.6
Ryerson	107	640	16.7
Toronto	45	2,328	1.9
Western (2)	72	1,291	5.6
Wilfrid Laurier (2)	29	206	14.1
Windsor	29	503	5.8
York (4)	40	1,037	3.8
Sub-total,Ontario	468	9,795	4.8

University and Province	Business Faculty	Total Full-time Faculty	Percentage Business Faculty
Manitoba	<u>51</u>	1,239	4.1
Regina Saskatchewan Sub-total, Saskatchewan	34 44 <u>78</u>	353 936 1,289	9-6 4.7 <u>6.0</u>
Alberta Calgary (2) Sub-total, Alberta	55 37 <u>92</u>	1,548 933 2,481	3.6 4.0 <u>3.7</u>
British Columbia Simon Fraser (2) Sub-total, British Columbia	94 22 <u>116</u>	1.862 435 2,297	5.0 5.1 <u>5.0</u>
Total Other (5) a) with business Institutions 5) without Grand Total	1,315 faculty 44 1,359	27,037 2,067 2,333 31,437	4.9 2.1 - 4.3

Table 7 (cont'd)

(1) includes secretarial sciences.

(2) excludes those university teachers who are primarily teaching economics.

(3) includes also the University of Montreal and Ecole Polytechnique.

(4) excludes those faculty members who teach public administration.

(5) some institutions have business faculty members without a program; universities such as Guelph, Waterloo, Winnipeg, Brandon, Lethbridge, and Victoria do not teach commerce and business administration; others are primarily religious institutions 7% of the faculty at the University of Prince Edward Island teach business administration to 23% of the students. Indeed, according to business school reports on their teaching loads, it appears that in 1977-78 the situation worsened.

Teachers of only undergraduate courses have an average weekly load of nine hours; those who combine graduate and undergraduate teaching average seven to eight hours. The load in business faculties is heavier than in many other disciplines, and their class size is also substantially greater. The hours spent in actual teaching and the burdens imposed by growing numbers of students might hamper research activities.

When business enrolment and faculty are related to operating budgets, these distortions are even greater. For reasons of confidentiality and the difficulty of measuring operating expenditures, only aggregate data are provided. On average, the 39 business schools received 3% to 4% of the operating budget of their university, although they accounted for 4.9% of the faculty and 11.1% of the students.

Most universities have had difficulty reallocating financial resources from disciplines with declining enrolments to growth sectors. This is partly related to the traditional concept of the university as an institution devoted to the

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social sciences, humanities, and sciences.

It should also be noted, however, that studies carried out by some universities have found that the cost per student in business schools are often the lowest. In many instances, in provinces that operate on a formula basis, business schools generate more dollars than are allocated to them.

Physical facilities, including computer equipment, vary by university, and no general statement is applicable. Some business schools have excellent buildings, others seem to be somewhat neglected. Most suffer space limitations which could become severe as university construction programs are phased out.

All business schools mentioned difficulties in staffing permanent positions. This is not surprising - during the last few years about 100 full-time positions needed to be filled annually, but Canadian universities graduated an average of 12 business Ph.D.'s a year. Therefore, the schools had to rely on part-time faculty, term appointments, visiting scholars, and foreign teachers. According to the business school survey, 130 new permanent positions will be created for 1978-79, in addition to a replacement demand of 30 (Table 8). Moreover, temporary replacements need to be found for about 100 additional faculty members who will be on leave. Although the

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Table 8

Anticipated Net Addition and Replacement Demand for 1978-79 Full-time Business Faculty Positions by Region

	Net Additions	Replacement Demand*	Total
Region			
Atlantic Region	23	4	27
Quebec	48	8	56
Ontario	35	10	45
Western Provinces		8	32
Total	130	30	160

* Assume 1% retirement and death of the total stock of 1,400 and an additional 1% for net outward mobility. However, excluded is the temporary replacement demand for about 100 business faculty members who will be on sabbatical or other leave in 1978-79.

number of Ph.D. graduates will increase (see Tables 9 and 10, particularly the explanatory notes), those available for new appointments may be considerably less because some of them already hold permanent positions, others are foreign students who will return to their country of origin, and some may prefer employment in government or industry. A sizeable number of Canadians still obtain their Ph.D. in the United States, and some of them would be available for university teaching in Canada, although the exact number cannot be determined. Nonetheless, prospects for an adequate supply of business Ph.D. graduates are not encouraging for the next few years.

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Table 9

	by Univers	ity, 1978 to	5 1982		
University	1978	1979	1980	1981	1982
Quebec*	6	9	17	20	20
Laval	4	6	4	3	1
Toronto	4	11	10	7	8
Western	15	10	9	12	12
York	2	7	6	6	7
British Columbia	11	13	13	15	15
Simon Fraser	0	2	2	0	0
Total	42	58	61	63	63

Anticipated Business Ph.D. Graduates by University, 1978 to 1982

* A joint program by Concordia, Ecole des Hautes Etudes Commerciales, McGill and Quebec (Montreal).

Explanatory notes: Although the nine universities indicated that they plan to graduate in 1978, 42 Ph.D.'s in business and 58 in 1979, these figures and those in Table 10 are likely an over-estimation if compared with recent years where only 12 Ph.D.'s have annually been forthcoming. Moreover, a sizeable number held already a permanent position and would therefore not enter the labour market, and others are returning foreign students or might select government and industry for employment. Therefore, the data in Tables 9 and 10 have to be interpreted continuously in regard to the supply of business Ph.D.'s for the next five years.

Table 10

Anticipated Business Ph.D. Graduates by Specialization, 1978 to 1982

	1978	1979	1980	1981	1982
Accounting	5	7	7	6	5
Finance	6	15	12	9	13
Industrial relations	2	3	6	3	4
Marketing	8	10	9	11	11
Management	1	4	10	11	9
Organization Theory	9	7	5	8	8
Quantitative Methods	7	5	5	6	7
International Management	0	1	1	1	1
Production	2	1	1	2	2
Other	<u>م</u> ۲	5	5	6	3
Total	42	58	61	63	63

Concluding Observations

A decade ago, in its Fifth Annual Review, the Economic Council warned that Canadian business schools were not receiving support commensurate with the emphasis society was placing on formal management education. Response by the government and universities has been slow. In the last few years, many universities have strengthened their business schools, but not necessarily in relation to the demand for their services. This situation is complicated by the "steady state" environment of universities, in which no overall growth can be envisaged for the next twenty years. Rather, on the basis of demographic factors, a 25% decline in university enrolment is expected for the eighties.

This pattern might not hold for business schools, which now appear to be a major growth sector of the university community. It is necessary to examine the demand for management education in the eighties and nineties, and the amount of resources, both human and financial, required to meet present and future needs.

The rising demand creates pressure to admit as many students as are interested in studying business. This pressure is augmented by the per capita funding scheme of some provinces under which payments are made in proportion to the number and type of students. These pressures contravene the endeavours of business schools to limit enrolment by raising admission standards and establishing formal and informal quotas to provide quality education. At the graduate level, some business schools have higher admission criteria than other graduate programs in their university.

Another development is the desire of many arts and science students to take one or more business courses. But often these courses are reserved for business students. At many American universities this option exists, and it is likely that Canada will move in a similar direction. If so, the demand on business schools would be formidable, but society's need for multi-disciplinary education with some professional orientation would be fulfilled.

Other circumstances are likely to increase the demand for business education; for example, the need for managers to upgrade their qualifications and the growing trend among women to enter business programs.

Particularly troublesome in coping with this demand is the scarcity of business faculty with a doctoral degree. During the last few years, Canadian universities have produced, on average, fewer than a dozen business doctorates annually, some of them foreign students who returned to their country of origin or moved to a third country. Many schools have filled positions with term-appointments, part-time faculty, and visiting scholars. Others have made use of retired managers. It is a question of the proper mix, and the present situation is not optimum. Overcoming the inadequate supply of faculty with Ph.D.'s will be a lengthy process, and it is beyond the confines of this report to make specific suggestions. These conditions and the heavy teaching load inhibit research. A reassessment of business research is needed, with a view to developing projects with a professional as well as academic orientation.

It seems ironic that just when there is a demand for the services of the universities in a particular discipline, internal barriers and limited resources prevent its adequate fulfillment.

The current predicament of Canadian business schools can be summarized: in 1976-77, they had 11.1% of university students, but only 3%-4% of the operating budgets; a year later, business schools' share of enrolment increased to about 12.5%, but without corresponding growth in funding.

Reliable documentation of the current situation and an investigation of possible futures are pre-conditions for the development of policy alternatives to remedy the problems. But until recently, except for the Economic Council, little attention has been given to business schools. As with many other facets of Canadian higher education, the subject has not been studied satisfactorily from a national perspective.⁽⁹⁾ It is hoped that this report contributes to a better understanding and provides some basic information.

⁽⁹⁾ The Council of Deans of Faculties of Management and Business Administration in recent months has initiated a number of studies which address themselves to some of these issues.

Table A-1

Full-Time Undergraduate Business Enrolment in Relation to Total Full-Time Undergraduate Enrolment by University and Province, 1975-76 to 1977-78

1975-76	1976-77	1977-78
	(in percent)	
7.8*	8.1*	9.4
20.7	24.2	25.6
11.5	15.8	17.7
8.9	10.1	11.3
7.8	8.5	8.0
13.6	14.2	16.8
32.3	34.5	37.2
14.3	15.5	16.9
14.3	14.9	14.4
12.6	14.4	14.2
13.8	14.7	15.8
13.8	14.7	15.2
27.4	32.1	34.9
28.3	28.7	29.5
8.0	8.6	9.6
8.8	8.9	8.8
10.5	10.3	10.1
25.6	25.9	
13.8	11.8	
10.6	21.3	29.0
14.4	15.2	
13.7	15.3	14.5
12.7	13.4	15.8
	$ \begin{array}{r} 7.8 \\ 20.7 \\ 11.5 \\ 8.9 \\ 7.8 \\ 13.6 \\ 32.3 \\ 14.3 \\ 14.3 \\ 14.3 \\ 12.6 \\ 13.8 \\ 13.8 \\ 27.4 \\ 28.3 \\ 8.0 \\ 8.8 \\ 10.5 \\ 25.6 \\ 13.8 \\ 10.5 \\ 25.6 \\ 13.8 \\ 10.6 \\ 14.4 \\ 13.7 \\ 12.7 \\ $	$\begin{array}{c c c c c c c c c c c c c c c c c c c $

Table A-1 (cont'd)

Full-Time Undergraduate Business Enrolment in Relation to Total Full-Time Undergraduate Enrolment by University and Province, 1975-76 to 1977-78

(in percent) Carleton 6.9 7.7 8.7 Lakehead 8.0 10.5 17.8 Laurentian 12.6 14.6 14.2 McMaster 12.7 11.9 13.4 Ottawa 8.8 9.3 10.6 Queen's 7.7 7.6 7.8 Ryerson 20.3 20.0 19.7 Toronto 1.9 2.1 2.7 Western Ontario 2.0 2.1 2.1 Wilfrid Laurier 32.7 34.4 36.2 Windsor 16.8 18.8 20.9 York 1.6 2.1 2.1 Sub-Total Ontario 7.6 8.2 9.0 Manitoba 10.9 11.2 10.2 Regina 18.0 19.4 22.6 Saskatchewan 12.7 12.6 12.6 Sub-Total Saskatchewan 10.5 10.0 8.9 Galgary 11.7 12.2 14.5	University and Province	1975-76	1976-77	1977-78*
Carleton 6.9 7.7 8.7 Lakehead 8.0 10.5 17.8 Laurentian 12.6 14.6 14.2 McMaster 12.7 11.9 13.4 Ottawa 8.8 9.3 10.6 Queen's 7.7 7.6 7.8 Ryerson 20.3 20.0 19.7 Toronto 1.9 2.1 2.7 Western Ontario 2.0 2.1 2.1 Wilfrid Laurier 32.7 34.4 36.2 Windsor 16.8 18.8 20.9 York 1.6 2.1 2.1 Sub-Total Ontario 7.6 8.2 9.0 Manitoba 10.9 11.2 10.2 Regina 18.0 19.4 22.6 Saskatchewan 12.7 12.6 12.6 Sub-Total Saskatchewan 10.5 10.0 8.9 Galgary 11.7 12.2 14.5 Sub-Total Alberta			(in percent)	
Lakehead 8.0 10.5 17.8 Laurentian 12.6 14.6 14.2 McMaster 12.7 11.9 13.4 Ottawa 8.8 9.3 10.6 Queen's 7.7 7.6 7.8 Ryerson 20.3 20.0 19.7 Toronto 1.9 2.1 2.7 Western Ontario 2.0 2.1 2.1 Wilfrid Laurier 32.7 34.4 36.2 Windsor 16.8 18.8 20.9 York 1.6 2.1 2.1 Sub-Total Ontario 7.6 8.2 9.0 Manitoba 10.9 11.2 10.2 Regina 18.0 19.4 22.6 Saskatchewan 12.7 12.6 12.6 Sub-Total Saskatchewan 14.0 14.1 14.8 Alberta 10.5 10.0 8.9 Galgary 11.7 12.2 14.5 Sub-Total Alberta 10.9 10.8 10.9 British Columbia 8.8 <td>Carleton</td> <td>6.9</td> <td>7.7</td> <td>8.7</td>	Carleton	6.9	7.7	8.7
Laurentian 12.6 14.6 14.2 McMaster 12.7 11.9 13.4 Ottawa 8.8 9.3 10.6 Queen's 7.7 7.6 7.8 Ryerson 20.3 20.0 19.7 Toronto 1.9 2.1 2.7 Western Ontario 2.0 2.1 2.1 Wilfrid Laurier 32.7 34.4 36.2 Windsor 16.8 18.8 20.9 York 1.6 2.1 2.1 Sub-Total Ontario 7.6 8.2 9.0 Manitoba 18.0 19.4 22.6 Saskatchewan 12.7 12.6 12.6 Sub-Total Saskatchewan 14.0 14.1 14.8 Alberta 10.5 10.0 8.9 Galgary 11.7 12.2 14.5 Sub-Total Alberta 10.9 10.8 10.9 British Columbia 8.8 9.4 10.4 Simon Fraser 7.5 10.0 8.0 Sub-Total B.C. <t< td=""><td>Lakehead</td><td>8.0</td><td>10.5</td><td>17.8</td></t<>	Lakehead	8.0	10.5	17.8
McMaster 12.7 11.9 13.4 Ottawa 8.8 9.3 10.6 Queen's 7.7 7.6 7.8 Ryerson 20.3 20.0 19.7 Toronto 1.9 2.1 2.7 Western Ontario 2.0 2.1 2.1 Wilfrid Laurier 32.7 34.4 36.2 Windsor 16.8 18.8 20.9 York 1.6 2.1 2.1 Sub-Total Ontario 7.6 8.2 9.0 Manitoba 10.9 11.2 10.2 Regina 18.0 19.4 22.6 Saskatchewan 12.7 12.6 12.6 Sub-Total Saskatchewan 14.0 14.1 14.8 Alberta 10.5 10.0 8.9 Calgary 11.7 12.2 14.5 Sub-Total Alberta 10.9 10.8 10.9 British Columbia 8.8 9.4 10.4 Simon Fraser 7.5 10.0 8.0 Sub-Total B.C. 8.	Laurentian	12.6	14.6	14.2
Ottawa 8.8 9.3 10.6 Queen's 7.7 7.6 7.8 Ryerson 20.3 20.0 19.7 Toronto 1.9 2.1 2.7 Western Ontario 2.0 2.1 2.1 Wilfrid Laurier 32.7 34.4 36.2 Windsor 16.8 18.8 20.9 York 1.6 2.1 2.1 Sub-Total Ontario 7.6 8.2 9.0 Manitoba 10.9 11.2 10.2 Regina 18.0 19.4 22.6 Sub-Total Saskatchewan 12.7 12.6 12.6 Sub-Total Saskatchewan 12.7 12.6 12.6 Sub-Total Saskatchewan 14.0 14.1 14.8 Alberta 10.5 10.0 8.9 Galgary 11.7 12.2 14.5 Sub-Total Alberta 10.9 10.4 10.4 Simon Fraser 7.5 10.0 8.0	McMaster	12.7	11.9	13.4
Queen's 7.7 7.6 7.8 Ryerson 20.3 20.0 19.7 Toronto 1.9 2.1 2.7 Western Ontario 2.0 2.1 2.1 Wilfrid Laurier 32.7 34.4 36.2 Windsor 16.8 18.8 20.9 York 1.6 2.1 2.1 Sub-Total Ontario 7.6 8.2 9.0 Manitoba 10.9 11.2 10.2 Regina 18.0 19.4 22.6 Saskatchewan 12.7 12.6 12.6 Sub-Total Saskatchewan 14.0 14.1 14.8 Alberta 10.5 10.0 8.9 Calgary 11.7 12.2 14.5 Sub-Total Alberta 10.9 10.8 10.9 British Columbia 8.8 9.4 10.4 Simon Fraser 7.5 10.0 8.0 Sub-Total B.C. 8.5 9.5 9.9	Ottawa	8.8	9.3	10.6
Ryerson 20.3 20.0 19.7 Toronto 1.9 2.1 2.7 Western Ontario 2.0 2.1 2.1 Wilfrid Laurier 32.7 34.4 36.2 Windsor 16.8 18.8 20.9 York 1.6 2.1 2.1 Sub-Total Ontario 7.6 8.2 9.0 Manitoba 10.9 11.2 10.2 Regina 18.0 19.4 22.6 Saskatchewan 12.7 12.6 12.6 Sub-Total Saskatchewan 14.0 14.1 14.8 Alberta 10.5 10.0 8.9 Calgary 11.7 12.2 14.5 Sub-Total Alberta 10.9 10.8 10.9 British Columbia 8.8 9.4 10.4 Simon Fraser 7.5 10.0 8.0 Sub-Total B.C. 8.5 9.5 9.9 Total 10.3 10.9 11.9	Queen's	7.7	7.6	7.8
Toronto 1.9 2.1 2.7 Western Ontario 2.0 2.1 2.1 Wilfrid Laurier 32.7 34.4 36.2 Windsor 16.8 18.8 20.9 York 1.6 2.1 2.1 Sub-Total Ontario 7.6 8.2 9.0 Manitoba 10.9 11.2 10.2 Regina 18.0 19.4 22.6 Saskatchewan 12.7 12.6 12.6 Sub-Total Saskatchewan 14.0 14.1 14.8 Alberta 10.5 10.0 8.9 Calgary 11.7 12.2 14.5 Sub-Total Alberta 10.9 10.8 10.9 British Columbia 8.8 9.4 10.4 Simon Fraser 7.5 10.0 8.0 Sub-Total B.C. 8.5 9.5 9.9 Total 10.3 10.9 11.9	Ryerson	20.3	20.0	19.7
Western Ontario 2.0 2.1 2.1 Wilfrid Laurier 32.7 34.4 36.2 Windsor 16.8 18.8 20.9 York 1.6 2.1 2.1 Sub-Total Ontario 7.6 8.2 9.0 Manitoba 10.9 11.2 10.2 Regina 18.0 19.4 22.6 Saskatchewan 12.7 12.6 12.6 Sub-Total Saskatchewan 14.0 14.1 14.8 Alberta 10.5 10.0 8.9 Calgary 11.7 12.2 14.5 Sub-Total Alberta 10.9 10.8 10.9 British Columbia 8.8 9.4 10.4 Simon Fraser 7.5 10.0 8.0 Sub-Total B.C. 8.5 9.5 9.9 Total 10.3 10.9 11.9	Toronto	1.9	2.1	2.7
Wilfrid Laurier 32.7 34.4 36.2 Windsor 16.8 18.8 20.9 York 1.6 2.1 2.1 Sub-Total Ontario 7.6 8.2 9.0 Manitoba 10.9 11.2 10.2 Regina 18.0 19.4 22.6 Saskatchewan 12.7 12.6 12.6 Sub-Total Saskatchewan 14.0 14.1 14.8 Alberta 10.5 10.0 8.9 Calgary 11.7 12.2 14.5 Sub-Total Alberta 10.9 10.8 10.9 British Columbia 8.8 9.4 10.4 Simon Fraser 7.5 10.0 8.0 Sub-Total B.C. 8.5 9.5 9.9 Total 10.3 10.9 11.9	Western Ontario	2.0	2.1	2.1
Windsor 16.8 18.8 20.9 York 1.6 2.1 2.1 Sub-Total Ontario 7.6 8.2 9.0 Manitoba 10.9 11.2 10.2 Regina 18.0 19.4 22.6 Saskatchewan 12.7 12.6 12.6 Sub-Total Saskatchewan 14.0 14.1 14.8 Alberta 10.5 10.0 8.9 Calgary 11.7 12.2 14.5 Sub-Total Alberta 10.9 10.8 10.9 British Columbia 8.8 9.4 10.4 Simon Fraser 7.5 10.0 8.0 Sub-Total B.C. 8.5 9.5 9.9 Total 10.3 10.9 11.9	Wilfrid Laurier	32.7	34.4	36.2
York 1.6 2.1 2.1 Sub-Total Ontario 7.6 8.2 9.0 Manitoba 10.9 11.2 10.2 Regina 18.0 19.4 22.6 Saskatchewan 12.7 12.6 12.6 Sub-Total Saskatchewan 14.0 14.1 14.8 Alberta 10.5 10.0 8.9 Calgary 11.7 12.2 14.5 Sub-Total Alberta 10.9 10.8 10.9 British Columbia 8.8 9.4 10.4 Simon Fraser 7.5 10.0 8.0 Sub-Total B.C. 8.5 9.5 9.9 Total 10.3 10.9 11.9	Windsor	16.8	18.8	20.9
Sub-Total Ontario 7.6 8.2 9.0 Manitoba 10.9 11.2 10.2 Regina 18.0 19.4 22.6 Saskatchewan 12.7 12.6 12.6 Sub-Total Saskatchewan 14.0 14.1 14.8 Alberta 10.5 10.0 8.9 Calgary 11.7 12.2 14.5 Sub-Total Alberta 10.9 10.8 10.9 British Columbia 8.8 9.4 10.4 Simon Fraser 7.5 10.0 8.0 Sub-Total B.C. 8.5 9.5 9.9 Total 10.3 10.9 11.9	York	1.6	2.1	2.1
Manitoba 10.9 11.2 10.2 Regina 18.0 19.4 22.6 Saskatchewan 12.7 12.6 12.6 Sub-Total Saskatchewan 14.0 14.1 14.8 Alberta 10.5 10.0 8.9 Calgary 11.7 12.2 14.5 Sub-Total Alberta 10.9 10.8 10.9 British Columbia 8.8 9.4 10.4 Simon Fraser 7.5 10.0 8.0 Sub-Total B.C. 8.5 9.5 9.9 Total 10.3 10.9 11.9	Sub-Total Ontario	7.6	8.2	9.0
Regina 18.0 19.4 22.6 Saskatchewan 12.7 12.6 12.6 Sub-Total Saskatchewan 14.0 14.1 14.8 Alberta 10.5 10.0 8.9 Calgary 11.7 12.2 14.5 Sub-Total Alberta 10.9 10.8 10.9 British Columbia 8.8 9.4 10.4 Simon Fraser 7.5 10.0 8.0 Sub-Total B.C. 8.5 9.5 9.9 Total 10.3 10.9 11.9	Manitoba	10.9	11.2	10.2
Saskatchewan 12.7 12.6 12.6 Sub-Total Saskatchewan 14.0 14.1 14.8 Alberta 10.5 10.0 8.9 Calgary 11.7 12.2 14.5 Sub-Total Alberta 10.9 10.8 10.9 British Columbia 8.8 9.4 10.4 Simon Fraser 7.5 10.0 8.0 Sub-Total B.C. 8.5 9.5 9.9 Total 10.3 10.9 11.9	Regina	18.0	19.4	22.6
Sub-Total Saskatchewan 14.0 14.1 14.8 Alberta 10.5 10.0 8.9 Calgary 11.7 12.2 14.5 Sub-Total Alberta 10.9 10.8 10.9 British Columbia 8.8 9.4 10.4 Simon Fraser 7.5 10.0 8.0 Sub-Total B.C. 8.5 9.5 9.9 Total 10.3 10.9 11.9	Saskatchewan	12.7	12.6	12.6
Alberta 10.5 10.0 8.9 Calgary 11.7 12.2 14.5 Sub-Total Alberta 10.9 10.8 10.9 British Columbia 8.8 9.4 10.4 Simon Fraser 7.5 10.0 8.0 Sub-Total B.C. 8.5 9.5 9.9 Total 10.3 10.9 11.9	Sub-Total Saskatchewan	14.0	14.1	14.8
Calgary 11.7 12.2 14.5 Sub-Total Alberta 10.9 10.8 10.9 British Columbia 8.8 9.4 10.4 Simon Fraser 7.5 10.0 8.0 Sub-Total B.C. 8.5 9.5 9.9 Total 10.3 10.9 11.9	Alberta	10.5	10.0	8.9
Sub-Total Alberta 10.9 10.8 10.9 British Columbia 8.8 9.4 10.4 Simon Fraser 7.5 10.0 8.0 Sub-Total B.C. 8.5 9.5 9.9 Total 10.3 10.9 11.9	Calgary	11.7	12.2	14.5
British Columbia 8.8 9.4 10.4 Simon Fraser 7.5 10.0 8.0 Sub-Total B.C. 8.5 9.5 9.9 Total 10.3 10.9 11.9	Sub-Total Alberta	10.9	10.8	10.9
Simon Fraser 7.5 10.0 8.0 Sub-Total B.C. 8.5 9.5 9.9 Total 10.3 10.9 11.9	British Columbia	8.8	9.4	10.4
Sub-Total B.C. 8.5 9.5 9.9 Total 10.3 10.9 11.9	Simon Fraser	7.5	10.0	8.0
Total 10.3 10.9 11.9	Sub-Total B.C.	8.5	9.5	9.9
	Total	10.3	10.9	11.9

* Preliminary

Table A-2

Full-time Graduate Business Enrolment in Relation to Total Full-Time Graduate Enrolment by University and Province, 1975-76 to 1977-78

University and Province	1975-76	1976-77	1977-78*
	(in percent)		
Dalhousie	11.0	15.5	17.5
St. Mary's	70.0	76.3	83.8
Sub-Total Nova Scotia	14.4	19.2	22.1
Moncton (New Brunswick)	28.5	24.2	24.3
Concordia	18.5	19.3	20.1
Montreal (Ecoles des Hautes Commerciales	5.2	5.3	3.9
Laval	7.1	7.9	8.6
McGill	5.7	6.4	6.3
Sherbrooke	13.8	10.1	12.2
Sub-Total Quebec	7.6	7.9	7.8
McMaster	16.2	13.8	18.3
Queen's	17.5	17.9	17.6
Ottawa	11.0	12.3	14.4
Toronto	4.9	5.7	6.1
Western	28.5	28.2	27.8
Windsor	15.4	17.4	23.7
York	25.8	30.8	26.3
Sub-Total Ontario	14.5	15.3	14.5
Manitoba	7.5	7.4	5.2
Saskatchewan	4.6	6.8	3.2
Alberta	6.2	5.9	5.4
Calgary	0.1	0.2	0.6
Sub-Total Alberta	4.2	4.0	3.9
British Columbia	14.7	12.4	13.5
Simon Fraser	29.6*	28.3*	30.0*
Sub-Total British Columbia	18.7	16.4	17.5
Total Canada	11.4	11.8	11.7





